

CONTENTS OF VOLUME 36

Number 1

Editorial	1
The Development of Reliability Techniques: a Retrospective Survey	3
The PSA Experience in Sweden: Accomplishment, Limitations and Future Development	7
Human Reliability Methodology. A Discussion of the State of the Art	15
Probabilistically Based Decision Support	23
Operational Decision Alternatives in Failure Situations of Standby Safety Systems— Development of Probabilistic Approach and PC Program TeReLCO	29
James-Stein Estimators for Failure Rates and Probabilities	35
A Computer Code Modelling Phenomenological Uncertainties in a PSA PETRA LUNDSTRÖM (Finland)	41
On the Analysis of Field Failure Data for Repairable Systems	47
Clayton's Model for Dependent Components in Systems Reliability	53
Finding Minimal Cut Sets in a Fault Tree	59
Reliability of Heat Detector Systems on an Offshore Production Plant	63
A Goal Oriented Approach to Software Testing	67
Frequency Dependent Vibrational Reliability of Welded Wire-Microjoints in Microelectronics—Physical Model	73
An Empirical Approach to Obtaining Bounds on the Failure Probability through Stress/Strength Interference	79
Calendar	85
Number 2	
Probabilistic Analysis of Flow Control as an Alternative to Level Control for BWR ATWS	87
On the Relevance of Non-Standard Theories of Uncertainty in Modeling and Pooling Expert Opinions	95

Reliability Estimation of an s-out-of-k System with Non-Identical Component Strengths: The Weibull Case	107
Application of Probabilistic Thermomechanical Models to Large and/or Complex Structures	115
Optimization Method to Estimate Distributional Parameter Values and Optimum Distribution Function from Incomplete Data	121
Expanding the Scope of DYLAM Methodology to Study the Dynamic Reliability of Complex Systems: The Case of Chemical and Volume Control in Nuclear Power Plants	125
P. C. CACCIABUE, A. CARPIGNANO & C. VIVALDA (Italy)	
An Exploratory Sensitivity Study with the MACCS Reactor Accident Consequence	125
J. C. HELTON, J. A. ROLLSTIN, J. L. SPRUNG & J. D. JOHNSON (USA)	135
Optimal Maintenance—Replacement Policy under Imperfect Maintenance	163
Modelling Human Error Rates for Human Reliability Analysis of a Structural Design Task	169
Letter to the Editors On the Origins of the Skills, Rules, and Knowledge Framework: A Brief Comment on Dougherty (1990)	177
Calendar	179
Number 3	
Guest Editorial	185
A Cognitive Model in a Blackboard Architecture: Synergism of AI and Psychology P. C. CACCIABUE, F. DECORTIS, B. DROZDOWICZ, G. MANCINI, M. MASSON & J. P. NORDVIK (Italy)	187
Metaknowledge for Time and Reliability	199
Cognitive Task Analysis of a Complex Work Domain: A Case Study	207
An Ergonomic Approach to Knowledge Representation	217
The Design of Fault Tolerant Systems: Prevention is Better Than Cure	231
Flow Displays Representing Complex Plant for Diagnosis and Process Control K. D. DUNCAN (UK) & N. PRAETORIUS (Denmark)	239
Verbal Communication in Collective Control of Simulated Nuclear Power Plant	
Incidents	245
Communication Patterns and Errors in Flight Simulation	253
Calendar	261

